SECTION 1: IMPACT OF U.S.-CHINA TRADE AND INVESTMENT ON THE U.S. ECONOMY

Key Findings

U.S. manufacturers in a broad array of industries are under increasing competitive pressures from domestic and foreign-invested China-based manufacturers. Although each U.S. industry has a unique set of competitive concerns with China, the principal cross-cutting concerns are China's undervalued currency, extensive system of government subsidies (particularly those favoring export-oriented production), weak intellectual property rights protections, and repressive labor practices. Many of these factors—some of which violate China's international trade commitments—may act as a strong inducement for U.S. and other foreign firms to invest in and relocate to China to serve the Chinese domestic market and to use as an export platform. China is accelerating and shaping the global shift in manufacturing.

- China announced exchange rate reforms in July that included a modest revaluation of the renminbi (RMB) against the U.S. dollar and the linking of the RMB's value going forward to a basket of international currencies. This was an extremely limited step, amounting to a 2.1 percent change in value. Most economists believe that the RMB is undervalued by 15 to 40 percent. China's currency manipulation acts as a subsidy for Chinese exports to the United States and a tax on imports from the United States, and serves as an incentive for U.S. and foreign firms to move production to China.
- U.S. producers of advanced technology products are also subject to the growing pressures posed by China. In 2004, the U.S. trade deficit in advanced technology products with China grew to $36.3 billion.
- The U.S. government does not collect comprehensive data on how the offshore movement of U.S. production through overseas investment and outsourcing affects U.S. employment. The Commission funded two studies that utilized differing methodologies to assess such employment effects. One estimated that U.S. production shifts to China in 2004 alone resulted in a loss of 100,000 U.S. jobs. The other found that nearly 1.5 million U.S. job opportunities have been displaced over the period 1989–2003 due to U.S.-China trade deficits.

Overview

During the 2004–05 reporting cycle, the Commission continued its examination of how the U.S.-China trade and investment relationship is affecting key U.S. industry sectors and different regions of the U.S. economy. The Commission held field hearings in Akron,

Ohio; Seattle, Washington; Palo Alto, California; and New York, New York and took testimony from representatives of a wide array of U.S. industries including automotive and auto parts, steel, glassware and ceramics, machine tools, aviation, aerospace, software, agriculture, paper and forest products, shipping and maritime, electronics, semiconductors, information technology, and entertainment.

While each of these industries has unique challenges and opportunities regarding China, they voiced many common concerns about China's industrial, financial, and labor practices that are putting them at a competitive disadvantage. Most made a point of citing China's undervalued currency as a major factor making U.S. exports less competitive and Chinese imports more attractive, and generally serving as an incentive for U.S. firms to relocate production to China. Industry representatives further cited China's extensive system of government subsidies as an unfair trade practice—including tax incentives, preferential access to credit and capital, non-commercial capital borrowing from state-owned financial institutions, and subsidized energy and utility costs. Another major concern is China's lack of effective protections for and enforcements of intellectual property rights, which allows Chinese firms to benefit from U.S. innovation at virtually no cost. In addition, China's economy continues to be characterized by widespread repressive labor practices that violate internationally-recognized workers rights and effectively hold down wages for Chinese workers to levels that make it virtually impossible for American workers, no matter how well-trained or productive, to compete.

The practices outlined above are key drivers of China's rapidly developing industrial base. They have made China an attractive location for U.S. and other foreign firms to relocate production, both to serve China's domestic market and as an export platform, and have led to the development of a "China Price" for many manufactured goods that has lowered profit margins and put downward pressure on wages for U.S.-based producers of the same items. Testimony to the Commission portrayed a landscape where China's government is pursuing policies to develop its industrial and technological base in many sectors that are key for the U.S. economy, which leaves many U.S. firms facing an insurmountable competitive challenge.

Industry Impact

Through its field hearings in different regions of the country, the Commission has been assessing how the U.S.-China trade and investment relationship is affecting different sectors of the U.S. economy. Below is a synopsis of the principal concerns and competitive challenges raised by industry and labor representatives and by analysts of these industries.

Automobiles and Auto Parts

China has designated the automobile industry as one of its pillar industries and taken steps to aggressively ramp up manufacturing capacity on a scale that appears to disregard the global demand outlook. In 2003, China's automobile production reached 4.4 million units, more than a third of U.S. total production of 12.1 million

units.[2] According to a 2004 study by the International Metalworkers Federation, China's major auto producing groups, including foreign joint ventures, are projected to produce 7.7 million units within three years.[3] The report cites conservative estimates that by 2007 Chinese production capacity for passenger cars will be twice that of domestic demand, resulting in excess production of more than three million units, and that this level of excess capacity will continue through at least 2010.[4] A similar assessment was provided to the Commission by an industry analyst from Morgan Stanley.[5]

The early migration of U.S. auto and auto parts manufacturers to China has resulted in the accelerated movement of production. For example, General Motors agreed, as part of its effort to obtain government approval to create an auto production facility in China, that it would swiftly increase its sourcing of auto parts from Chinese sources and assist them to become world-class producers through technological assistance. The other major U.S. auto producers and auto parts manufacturers such as Delphi have made large investments in China as well. The cost differential, resulting from subsidies, lower wage rates, and other factors, has put enormous pressure on domestic suppliers—both with any remaining manufacturing facilities in the United States in that corporate group, and with independent suppliers—to move their production to China. In short, U.S. investments and technology transfers have dramatically advanced China's production capabilities at the resulting expense of U.S. production and employment.

This leads to the critical question of where this excess production will go. Reportedly, China's Vice Minister of Commerce has announced a goal to export $100 billion of vehicles and auto parts by 2010.[6] The initial stages of this potential export flow of finished cars are already underway. Honda began exporting cars from China to Europe earlier this year, along with the Chinese firm Jiangling Motors Co. Group.[7] The Chinese firm Geely Auto intends to begin selling low-priced cars in the U.S. market next year while Chery Automobile Co. has indicated plans to export as many as 250,000 units to the United States starting in 2007.[8] Notably, General Motors has accused Chery of illegally copying the design of one of its models and is seeking relief in Chinese courts. The "Big Three" U.S. auto firms have not made clear their long-term plans for exporting from China, but all are ramping up their China-based production. General Motors has announced that it will significantly ratchet up its investment in China and double production by 2007.[9] DaimlerChrysler is engaged in talks with a Chinese partner that could result in manufacturing a vehicle targeted in part at the U.S. market.[10] Ford has announced a $1 billion expansion plan for China including a new engine assembly plant in Nanjing.[11]

Unlike the example of the Japanese automotive sector years ago, China has welcomed foreign investment and U.S. and other overseas automakers have played a key role in developing China's auto industry through investment and joint venture partnerships with Chinese firms. From 1996 until mid-2003, global automakers invested $12 billion in China's automotive industry and some estimates suggest that another $10 billion of foreign capital will be invested between 2003 and 2006.[12] Moreover, while Japanese manu-

facturers developed their own distribution systems and dealership networks here in the United States, Chinese manufacturers, through their U.S. partners, have a readily accessible distribution network that could accommodate large volumes of imports from China. While some observers downplay the potential for Chinese-made cars to compete with U.S. production due to the current substandard quality of many Chinese automobiles, the Commission heard testimony that this problem may well be satisfactorily addressed in the near term, potentially introducing enormous competitive pressures to the U.S. domestic auto market, as well as in auto markets in third countries.

While the export of cars from China is just getting underway, the Chinese auto parts sector is already a major exporter, with many U.S. firms significantly producing in or sourcing from China. U.S. auto companies increasingly are looking to suppliers that can price to the China level, and the recent bankruptcy of auto parts supplier Delphi may exacerbate changing sourcing patterns. Both Ford and General Motors have announced their intention to source $10 billion annually in auto parts from China within the next few years to serve their operations both in China and abroad.[13] This trend has led to a U.S. trade deficit with China in auto parts that grew from $121 million in 1993 to $2.3 billion in 2003 despite the fact that U.S. auto parts exports to China more than doubled during that period.[14]

Aviation and Aerospace

China is projected to be the largest market for new aircraft in the next two decades, giving Chinese firms, which are backed by the government, a significant degree of buying leverage. With aircraft purchases controlled and vetted by the Chinese government, China has been methodically distributing aircraft orders between Boeing and Airbus, often based on near-term political considerations. Moreover, during purchase negotiations, Chinese firms have used their leverage to extract offsets—agreements to transfer some of the aircraft production along with related expertise and technology—as part of the deals. Where such offsets are required as a matter of government policy, they violate China's WTO commitments. Nonetheless, in practice, China aggressively requires offsets as a price of access to its market. More broadly, the prevalence of offset arrangements in aviation deals puts U.S. firms in the difficult position of increasingly having to outsource components of production in order to conclude a transaction and maintain a market for U.S.-based manufacturing. Over the long term, these dynamics undermine U.S. global leadership in aircraft manufacturing.

Boeing's Web site chronicles the following current and newly-concluded arrangements for "Boeing-China Industrial Cooperation":[15]

Current Work Packages

—Shanghai: 737 horizontal stabilizers
—Xi'an: 737 vertical fins and 747 trailing edge ribs, 747 floor beams for freighter modification
—Shenyang: 737 tail section modules
—Chongqing, Sanyuan: forgings
—BHA: components, secondary composite structure and interiors components; 737, 767

New Work Packages

—Chengdu: 787 rudder
—Hafei: 787 wing-to-body fairing panels
—Shenyang: 787 leading edge for the vertical fin
—Chengdu: 737 forward entry door, 737 over-wing exit door
—BHA: 777 interior panels for flight deck
—737 wing-to-body fairing panels
—737 tail cone
—Other opportunities are being evaluated

Highlighting the importance of the China market to Boeing, the company signed a preliminary agreement in January 2005 with six Chinese airlines for the purchase of 60 of its new 787 Dreamliner aircraft for $7.2 billion and subsequently formalized the arrangement with four of the airlines for 42 of the aircraft.[16] As indicated in the chart above, production of several components of the 787 have already been offset to China.

In another indication of China's developing aviation sector, China Aviation Industry Corporation is in the process of developing a regional jet—the ARJ21. U.S. firms are providing the flight control systems, avionics, and engines to support the ARJ21 program.[17] This aircraft may eventually capture a significant share of the Chinese market and be exported to compete in the global aircraft market as well.

China nurtures its domestic aviation and aerospace industry by exploiting the international competition already present in the industry. By playing Airbus and Boeing off one another, China elicits agreements from each to shift new production and technology to China.

Semiconductors

China is currently the world's third largest semiconductor market, estimated at $25 billion in 2003, and is projected to become the second largest by 2010.[18] U.S. semiconductor exports to China were $2.4 billion in 2003 and $2 billion for the first nine months of 2004, making them the second largest manufactured U.S. export to China.[19]

Yet despite the enormous market potential for U.S. exports, there is concern that the rapid development of semiconductor production within China may limit the long-term potential for U.S. ex-

porters. China has made development of this sector a national priority and fostered this development with policies such as preferential tax treatment, use of the technology standard-setting process to favor domestic firms, and government support for research and development. Some of these policies are inconsistent with China's WTO commitments. These efforts have borne fruit as some sources estimate that semiconductors designed, or partially designed, in China will account for nearly 15 percent of global semiconductor sales this year, making China the world's third most prolific nation for chip design.[20] The United States brought its first WTO case against China, the only WTO case that any country has brought, over its practice of providing a value added tax (VAT) rebate for companies that manufacture semiconductors in China while denying the rebate on imported chips. The case was settled in July 2004 after China agreed to eliminate the discriminatory rebate, though, as discussed in Chapter 2, there are concerns that China may be implementing new preferential policies for domestic semiconductor firms.

George Scalise, President of the Semiconductor Industry Association, gave the Commission a clear assessment of the trajectory of China's semiconductor industry. He testified that "[s]emiconductor technology has been making rapid strides in China by virtually any metric one can imagine" and that "[a]lthough China has chosen the low end of the foundry business as [its] entry vehicle into the global semiconductor industry, Chinese foundries are advancing rapidly to become world-class in leading-edge process technology."[21]

Scalise also made clear the challenge facing U.S. semiconductor firms:

> *Chinese government policies, and not lower labor costs, are the major contributor to [, over] 10 year[s], a one billion dollar cost differential, between building and operating a semiconductor plant in China compared to the U.S.*
>
> * * *
>
> *The decision to locate new capacity in China is not driven primarily by low labor costs—semiconductor fabs are capital and technology intensive and even an 80 percent differential in wage rates results in barely a 10 percent difference in final costs. The difference lies mainly in government incentives such as favorable taxation and other benefits.*[22]

The current trends regarding the U.S. semiconductor industry are reminiscent to some degree of the 1980s when the U.S. semiconductor industry was losing market share to Japanese competition. At that time, there were also concerns that Japan was denying leading edge semiconductor manufacturing tools to the United States. In response to this competitive threat and the need to develop more advanced domestic semiconductor manufacturing capabilities, the U.S. government and the industry, both jointly and separately, undertook a range of policy responses. One key initiative was SEMATECH, which ensured leading edge semiconductor manufacturing tools were produced in the United States.[23] SEMATECH, jointly funded by the government and industry, effec-

tively mitigated the high cost and risks associated with advanced semiconductor technology and is often credited, along with export control liberalization and a market share agreement with Japan, as a factor in reviving the U.S. semiconductor industry.[24]

Chapter 2 includes a discussion of the importance of advanced microchips to the U.S. defense industrial base and how China's growth as a location of semiconductor production and design may be affecting the United States' trusted and assured supply of defense critical chips.

Software

The U.S. trade deficit with China in computer and electronic hardware has implications for the future of U.S.-based software development. First, there are concerns about the extent to which the outsourcing of software design and production to locations outside the United States ("offshoring") will follow the already considerable offshoring of hardware production. Second, there are concerns about China's development of indigenous technical standards and how they may operate as an incentive to move both software and hardware production to China.[25]

The U.S. software industry has been subject to strong incentives for offshoring, driven by cheaper labor costs in China and India. Moreover, offshoring is likely to expand in scale, scope, and skill level as China and India continue to graduate high numbers of technically proficient computer engineers. But U.S. software firms also are put at a disadvantage by China's continuing failure to enforce intellectual property rights and by Chinese government policies that favor domestic industries. As detailed later in this section, the U.S. software industry has lost billions of dollars in China due to IPR piracy, and this rampant piracy has stalled U.S. software exports to China. The use of pirated software is even widespread among Chinese government offices.[26] Chapter 2 details China's announced government procurement restrictions, currently delayed, that would limit government purchases of foreign company software and thereby shut U.S. firms out of a lucrative segment of the Chinese software market that has better IP protections than the general commercial market.

Agriculture

While U.S. agricultural exports to China increased significantly in 2004, with a total of $5.5 billion in exports contributing to a sectoral trade surplus of $3.9 billion, the U.S. agricultural industry continues to face market barriers to its exports to China and increasingly is facing competition from Chinese exports in the U.S. and third-country markets.

USTR's 2004 Report to Congress on China's WTO Compliance highlights China's non-transparent and non-scientific based application of sanitary and phytosanitary measures, arbitrary inspection-related requirements, and improper administration of tariff-rate quotas for bulk agricultural commodities as continuing trade barriers affecting U.S. exports of wheat, soybeans, raw poultry and meat, and processed food products.[27] U.S. agricultural products were subjected to new sanitary and phytosanitary measures in

2004,[28] demonstrating that non-tariff barriers can be raised in new areas even as they disappear in others.

At the same time, increased import competition from China is already significant for many U.S. agricultural producers. The Commission heard testimony regarding China's surging production of apples, apple juice concentrate, pears, and spearmint oil and corresponding decreases in U.S. exports of these products, with industry representatives pointing to China's government subsidies for agriculture, lower labor costs, and undervalued currency as principal competitive advantages.[29]

The example of the apple industry demonstrates the dramatic impact of China's surging agriculture growth on U.S. industry. China began ramping up its production and export of apple juice concentrate in the mid-1990s and quickly moved from a negligible share of the U.S. market in 1995 to 40 percent in 2003, leading U.S. concentrate producers to slash their prices and drastically reduce the price they pay for U.S. juice apples.[30] The U.S. apple industry filed a successful dumping suit against Chinese apple juice concentrate imports, but dumping duties were later rescinded with regard to several major Chinese exporters.[31] The U.S. industry is now concerned about competition with fresh apple imports from China in third-country markets and eventually in the U.S. market, for which China has requested USDA approval. According to industry testimony: "At a minimum, the U.S. apple industry expects Chinese fresh apple imports to add significant downward pressure on fresh apple prices. Should Chinese producers gain access to the U.S. market, major segments of the apple industry could be forced out of business by low apple prices." [32] In addition to these competitive issues, the industry also expressed concern about the health safety of apple imports from China and about Chinese apple exporters counterfeiting the trademarked brand names and logos of U.S. apple producers.[33]

Paper and Forest Products

The American Forest and Paper Association (AF&PA) issued a detailed report in 2004 documenting how China has used a mix of government subsidies and targeted policies to rapidly expand its forest products industry. According to the report, the Chinese government provided $1.67 billion in financing and loan interest subsidies for renovation of 21 state-owned paper mills across China from 1998–2002 and has designated an additional $1.73 billion for the development of fast-growth, high-yield plantations by 2015. This has been in addition to extensive below-market financing offered to domestic firms by Chinese banks. The Chinese government has further assisted the industry by providing tariff exemptions on the import of logs and other raw materials and high-grade paper machinery while maintaining tariffs on imported value-added wood and paper products and VAT rebates on the export of these items.[34] These industry-specific policies, in addition to the subsidy provided by China's undervalued currency, have resulted in a growing U.S. trade deficit with China in paper products.

China's furniture exports to the United States totaled $8.9 billion in 2004, representing 42 percent of total U.S. furniture imports.[35] Furniture imports have forced the U.S. industry into a competition

that it has thus far been unable to withstand.[36] This competition has the potential to affect the roughly 570,000 workers employed by the U.S. industry.[37]

The full range of China's practices in this sector appears to be inconsistent with China's WTO commitments. As one witness explained: "[I]t is extremely hard to attract investment capital for our domestic pulp and paper facilities when it is common knowledge throughout our industry and Wall Street that China is coming online with a forest product manufacturing base that will be hard to deal with in the very near future." [38]

Ports and Shipping

The Commission heard testimony from two Pacific Northwest port directors on how the exponential growth in U.S.-China trade has affected U.S. ports and shipping.

M.R. Dinsmore, Chief Executive Officer of the Port of Seattle, highlighted for the Commission the increasing importance of trade with China to the port's future:

> *At the Port of Seattle, China became our largest trading partner last year—overtaking Japan—and it will continue to be one of our major customers in the years to come. In 2003 about $8.8 billion in two-way trade passed through the port alone. We've spent more than $800 million over the past few years upgrading our terminal facilities and we plan further expansion to accommodate the increased trade we know is heading our way.*[39]

Yet smaller ports like the Port of Portland have experienced dislocations from U.S.-China trade due to the growing imbalance between U.S. imports from and exports to China. Nathaniel Ruda, Marine Director of the Port of Portland, explained this dynamic to the Commission:

> *In the transpacific trade, for every three import containers moving to the United States, there is only one full export container. The bulk of our "exports" are now empty containers being returned to Asia, notably China. This gap has been one of the contributors to recent losses in direct container service coverage to Portland. Our traditional export-dominated cargo no longer presents an economic value proposition to shipping companies sufficient to sustain multiple weekly port calls. Shippers, especially agricultural exporters, must use more expensive truck/rail services to Puget Sound ports in order to obtain ship capacity to Far East markets.*[40]

Despite these current problems facing the Port of Portland, Mr. Ruda indicated that increased exports of grain to China have helped the port's bulk shipping business, as contrasted with its container business, and he expressed cautious optimism that continued growth in U.S.-China trade eventually would lead to a recovery of service frequency to the Port of Portland.[41]

The increased inbound shipping traffic at U.S. ports from China raises serious port security challenges as well. This topic is discussed in Chapter 4.

Trade Adjustment Assistance

The above industries are only a small and incomplete sample of the sectors of the U.S. economy that are affected by trade with China. The primary goal of U.S. policy must be the retention and expansion of U.S. employment. As the ramifications of the U.S. trade policy toward China spread throughout the economy, it is important for the United States to have an effective Trade Adjustment Assistance (TAA) program. The TAA program now offers benefits, tax credits, and funds for training and job searches. It was expanded in November 2002 to cover trade beyond Canada and Mexico and to begin to assist with job losses among suppliers to companies harmed by trade. Still, the program does not cover the full range of workers affected by trade, particularly in sectors that have not traditionally been exposed to international competition.[42] And, for a substantial percentage of those dislocated workers who are covered under the current eligibility definition contained in the statute, assistance may be unavailable:

> *Bureaucratic roadblocks, limited funding and restrictive legal requirements combine to render the benefits inaccessible to many—probably most—workers who lose their livelihoods as lower trade barriers open American markets to more foreign competition.*[43]

Cross-Cutting Competitiveness Concerns

As the above discussion indicates, testimony to the Commission by U.S. company and labor representatives and industry analysts expressed escalating concerns about the challenges faced by U.S. firms in both labor-intensive and capital-intensive industries in competing with China's growing industrial base. While each industry has an array of specific trade concerns with China, there are a number of key structural elements of China's economy that undermine the competitiveness of virtually all U.S.-based industries facing Chinese competition: China's undervalued currency, its extensive system of government subsidies, its weak IPR protections and enforcement, and its repressive labor practices.

China's Undervalued Currency

Beginning with its 2002 Report to Congress, the Commission has been analyzing the impact on U.S. industries of China's undervalued currency. In its 2004 Report to Congress, the Commission concluded that China was systematically intervening in the foreign exchange market to keep its currency undervalued, in violation of its obligations as a member of both the WTO and the International Monetary Fund (IMF), and that this currency misalignment had undermined the competitiveness of U.S. manufacturers. This situation continues.

The undervaluation of the Chinese currency affects the U.S. economy in several important ways. First, by making U.S. exports relatively more expensive, it reduces demand and export opportunities in China for U.S. manufactured goods. Second, the undervaluation of the RMB against the dollar makes imports from China relatively less expensive, inducing U.S. consumers to switch from domestically produced manufactured goods to Chinese-produced

goods. Third, this exchange rate misalignment reduces the profitability of U.S.-based manufacturing by making foreign goods cheaper and reduces the incentive for U.S.-based firms to invest in new production capacity. Lastly, the advantages provided by an undervalued RMB to Chinese-based manufacturing gives U.S. firms a strong incentive to shift existing production to China and to locate new production facilities there. All these factors have contributed to the burgeoning U.S. bilateral trade deficit with China and movement of production.[44]

Given China's large trade surplus with the United States and large-scale inflows of foreign direct investment, there have been strong market and political pressures on China to revalue the RMB upward, with a growing consensus of economists generally assessing the RMB to be between 15 and 40 percent undervalued. Chinese authorities have resisted this pressure by persistently intervening in currency markets to prevent appreciation of the RMB. This has contributed to the massive increase in Chinese foreign exchange holdings, which totaled $769 billion in September 2005. While other Asian trading partners such as Japan, South Korea, and Taiwan also run trade surpluses with the United States, they have allowed their currencies to appreciate in recent years to a much greater extent than China in order to facilitate the re-balancing process.[45] C. Fred Bergsten, Director of the Institute for International Economics, told the Commission that given China's high growth rate, its massive inflows of FDI, and its large global current account surplus (which exceeded 4 percent of GDP in 2004), "it is highly inappropriate, extremely counterproductive for the world economy, and extremely antisocial behavior for China to have become substantially more competitive over the last few years by engineering a significant decline in the exchange rate of its currency."[46]

On July 21, 2005, the central bank of China announced several changes in its exchange rate policies. First, the RMB was revalued upward by a modest 2.1 percent against the dollar. Second, the bank indicated that the Chinese currency would be allowed to trade within a band of 0.3 percent. Third, the reference point for trading the RMB was linked to a basket of international currencies rather than solely to the U.S. dollar. Now that this system has been in place for several months, it is apparent that China's government has continued to intervene in the exchange rate market to hold down the value of the RMB and that the new system does not represent a fundamental shift toward a strengthened value or more flexible valuation system for the RMB that is more in line with China's economic realities.

Notably, in releasing the May 2005 report, Treasury Secretary Snow called on China to take immediate steps to reform its currency practices "in a manner and magnitude that is sufficiently reflective of underlying market conditions."[47] The Commission does not believe China's July 2005 revaluation of the RMB meets this standard because it is insufficient to address current market distortions and to provide needed relief to U.S. exporters.

Some analysts argue that were China to significantly, upwardly revalue the RMB, Japan, South Korea, Taiwan and other Asian economies whose currencies remain undervalued despite some up-

ward movement in recent years would then allow their currencies to significantly appreciate and move toward adopting more flexible exchange rate policies, creating a positive multiplier effect for the U.S. economy. These other economies likely will be unwilling to make any significant movement without China taking the lead.

In its May 2005 Report to Congress on International Economic and Exchange Rate Policies, the Treasury Department plainly stated that China's exchange rate policies are "highly distortionary and pose a risk to China's economy, its trading partners, and global economic growth."[48] The report further indicated that "[c]oncerns of competitiveness with China also constrain neighboring economies in their adoption of more flexible exchange policies."[49] Notably, Treasury indicated that "[i]f current trends continue without substantial alteration," it was prepared to designate China as a country that manipulates the value of its currency to gain a competitive trade advantage under the provisions of the Omnibus Trade and Competitiveness Act of 1988 (the 1988 Trade Act).[50] This designation, in conjunction with a finding that China is running both a material global current account surplus and a significant bilateral trade surplus with the United States (which currently is the case), would require Treasury to initiate formal negotiations on an expedited basis, in the IMF or bilaterally, to ensure that China takes action to end its currency manipulation practices.[51] A formal designation under the 1988 Trade Act would put the United States on record as officially endorsing the view that China manipulates its currency for trade advantage and would require that Treasury act to end these practices. It would also increase pressure on the IMF to deal more forcefully with the issue.

The Commission believes that China must take immediate steps to allow the RMB to appreciate against the dollar or a transparent, trade-weighted basket of currencies by at least 25 percent.

China's Extensive Government Subsidies

The Commission has documented in past reports an array of practices by the Chinese government that constitutes subsidies to Chinese industries. These take the form of preferential tax treatment, subsidized and non-performing loans from state-owned banks, below market value costs for utilities, energy, land, and other infrastructure, and domestic input requirements.

In its WTO agreement, China committed to eliminate immediately all subsidies prohibited under Article 3 of the WTO Agreement on Subsidies and Countervailing Measures, which broadly covers subsidies contingent on export performance (export subsidies) and subsidies contingent on the use of domestic rather than imported goods (import substitution subsidies). The Subsidies Agreement further requires that China provide detailed information about its subsidy programs to the WTO on an annual basis.

According to USTR, "China has failed to make any of its required subsidy notifications since becoming a member of the WTO three years ago."[52] This has been the case despite repeated requests by USTR and other WTO member countries as part of China's annual transitional review in the WTO. This lack of transparency compounds the difficulties in addressing China's complex and pervasive

system of subsidies, as reported by USTR in its 2005 National Trade Estimate Report on Foreign Trade Barriers:

> *A general lack of transparency makes it difficult to identify and quantify possible export subsidies provided by the Chinese government. China's subsidy programs are often the result of internal administrative measures and are not publicized. Many of the subsidies take the form of income tax reductions or exemptions that are de jure or de facto contingent on export performance. They can also take a variety of other forms, including mechanisms such as credit allocations, low-interest loans, debt forgiveness and reduction of freight charges. U.S. industry has alleged that subsidization is a key reason that Chinese exports are undercutting prices in the United States and gaining market share. Of particular concern are China's practices in the textiles industry as well as in the steel, petrochemical, high technology, forestry and paper products, machinery and copper and other non-ferrous metals industries.*[53]

The Commission believes that one of the most pervasive forms of subsidies in the Chinese economy is the low and no-cost financing often available to Chinese domestic firms from state-owned banks. This system of "policy lending" whereby capital is allocated for political or strategic reasons using subsidized interest rates and other noncommercial terms arguably amounts to a massive government subsidy for Chinese firms that is used both to bolster their operations and to fund acquisitions.[54] As discussed above, the American Forest and Paper Association has documented over $3 billion in current and expected future government financing and loan interest subsidies for Chinese paper mills and forest plantations. This issue also arose in the context of the bid by China National Offshore Oil Corp. (CNOOC) for the U.S. petroleum firm Unocal. CNOOC's $18.5 billion offer for Unocal reportedly included $7 billion in low-interest or no-interest financing from its state-owned parent company and another $6 billion in favorable financing from a state-owned bank. The immense scale of the past use by China of this form of government subsidy is revealed by the fact that China's state-owned banks are estimated to have upwards of $500 billion in non-performing loans.

A significant hurdle in addressing Chinese government subsidies is the inability of U.S. firms to seek relief when competing against subsidized industries in China using U.S. countervailing duty (CVD) laws. The Department of Commerce has ruled that U.S. CVD laws are not applicable to non-market economies like China, a determination this Commission disputes. An analysis of this issue appears in Section 2 of this chapter.

The Commission further believes that both China's undervalued currency and its weak IPR protections and enforcement constitute additional forms of government subsidies. China's undervalued currency functions as a 15 percent to 40 percent subsidy for Chinese exports based on the estimated level of undervaluation. China's lack of adequate protections and enforcement for IPR also confers a government benefit on Chinese firms by allowing them to acquire U.S. technological and design know-how at no or little cost.

China's Weak Intellectual Property Rights (IPR) Protections and Enforcement

IPR piracy in China remains rampant and is a paramount trade concern for a broad array of U.S. firms whose intellectual property is central to their business success. U.S. exporters are concerned about the theft of their intellectual property and its reproduction and sale in China at a fraction of the cost, while U.S. producers are concerned about having to compete against Chinese firms that can make technology and design advances at low cost using pirated intellectual property.

Notwithstanding legal improvements, IPR violations in China continue virtually unchecked. Piracy rates in China remain above 90 percent across all copyright industries.[55] Counterfeiting in China has reached such epidemic proportions that two-thirds of the counterfeit products in the world are of Chinese origin.[56] Of the $94 million worth of counterfeit goods seized at the U.S. border in 2003, 66 percent originated in China.[57]

Take the example of the U.S. software industry, an industry that should be enjoying enormous market opportunities in China. Instead, the Business Software Alliance estimated that loses to the U.S. software industry due to piracy in China amounted to $1.47 billion in 2004.[58] According to industry testimony, U.S. software sales to China have stalled due to IPR concerns:

> *Rampant piracy has effectively stalled growth in U.S. software exports to China, despite China's escalating use of computer and software technologies. Consider that in 1996 China was the sixth largest market for personal computers and the twenty-sixth largest for software; it is now the second largest market for personal computers but still only the twenty-fifth largest market for software. This growing gap between hardware and software sales is the inevitable consequence of a market that does not respect intellectual property rights or reward the significant investment required to develop and market innovative software products.*[59]

The U.S. entertainment industry is another whose competitiveness has been heavily affected by the current IPR situation in China. The Motion Picture Association of America (MPAA) reports that China's piracy rate reached 95 percent in 2004 and that during 2003 69 percent of the VCD and 85 percent of the DVD discs manufactured in China were pirated product.[60] The industry estimates that U.S. film companies have lost over $1 billion in revenue due to piracy in China over the past seven years, with $280 million of those loses coming in 2004.[61] Particularly troubling is the MPAA's finding that exports of pirated goods from China to the United States, the United Kingdom, and other countries have increased steadily over the past several years.[62] Commenting on its competitive concerns, the MPAA told the Commission that "[n]o legitimate supplier of films, whether local or foreign, can compete with pirates who pay no taxes, endure no censorship obligations, and bear none of the costs of running a studio."[63]

This past July, the Motion Picture Association (MPA), an international association with which MPAA is affiliated, entered into an agreement with China's Ministry of Culture (MOC) and State Ad-

ministration of Radio, Film and Television (SARFT) whereby every three months MPA will submit to MOC and SARFT a list of movies scheduled to be screened in China by its member companies and the Chinese agencies will focus IPR enforcement efforts on seizing and prosecuting pirated videos of these movies that enter the market before their video release date.[64] Both the industry and the Commission await evidence that the promises are being fulfilled. That the industry had to negotiate for its own protection is a troubling sign that the U.S. government has failed in its role as guarantor of the economic rights of its citizens and companies.

While China's domestically produced films also suffer from piracy, there is evidence that when the Chinese government has chosen to do so, it has been able to control piracy in certain areas. In the case of domestic films, where the government has a financial stake in the films or the theaters showing them, the government has reportedly been able to control piracy so the films can be viewed only in theaters, resulting in a large theater viewership that pirated films are generally unable to realize.[65] This suggests that the Chinese government has considerably more power to enforce IPR protections than it has exerted to date.

IPR violations in China go well beyond the software and entertainment industries, with many U.S. industrial firms now being heavily affected. As noted above, General Motors is suing Chinese automaker Chery for illegally copying the design of one of its models. IPR infringements have also affected products like pharmaceuticals and gauges, raising health and safety concerns. The Commission heard testimony on this from a U.S. gauge manufacturer:

> *For the first time, to the best of my knowledge, Chinese counterfeiters have approached domestic customers for our product in an attempt to sell them copies of our instruments. I recently came into possession of one of these counterfeit gauges. These clones bear our name and address, as well as a label with a CE stamp on it certifying that the product has passed a battery of tests that are required in order for the product to carry this designation and be exported to the EU. In addition, the label on the case of the fake gauge also carries our catalog part number, and the initials of a calibrator as well as a final tester—all misrepresentations. When the product was checked on a test station it was found to be grossly inaccurate. One of the ramifications of this, beyond solely the ethical consideration, is that of creating a potential safety issue for whoever uses the faulty instrument.*[66]

China's lack of adequate IPR protections also give Chinese firms a competitive advantage over U.S. firms by allowing many to obtain key technology and design inputs—from software to assembly line design—at a fraction of the cost to their U.S. competitors. Removing the need to shoulder comparable production costs gives Chinese firms in many sectors the ability to heavily under-price U.S. firms, in capital-intensive as well as labor-intensive industries. Some observers contend that for these reasons the Chinese government views a lax IPR enforcement regime as part of its industrial policy:

China's failure to police its intellectual property rules often looks less like ineffective government than a conscious policy to shift the highest value goods from other economies into the country. It is, in essence, the largest industrial subsidy in the world, and brilliantly, it costs the Chinese nothing. In 2005, China will most likely be the world's third-largest trading nation, and counterfeiters give the country's increasing number of globally competitive companies the means to compete against powerful foreign rivals that pay for their use of proprietary technologies.[67]

The U.S. government has spent the last 15 years working with China to improve its IPR protection and enforcement regime with little to show in the way of concrete results. This has been the case despite the fact that bilateral agreements on IPR were concluded with China in 1992, 1995, and 1996, China's accession to the WTO and its accompanying agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), and high-level IPR enforcement commitments by China in the 2004 meeting of the U.S.-China Joint Commission on Commerce and Trade (JCCT). Improving China's enforcement of IPR was again the major topic of the JCCT talks that took place this past July. The Commission remains skeptical that China will make any substantial progress in curbing its level of IPR violations without aggressive U.S. enforcement efforts under U.S. law and in international venues.

China's Repressive Labor Practices

A significant component of China's competitive advantage in many industries is the ongoing denial of basic labor rights to workers in those industries. This is not only a bilateral human rights matter, but one that has significant repercussions for U.S. economic competitiveness.

The State Department's 2004 Country Reports on Human Rights Practices documents China's widespread deprivation of fundamental workers rights, including the right to organize, form independent trade unions, and bargain collectively, the continuing practice of forced or compulsory labor and child labor, and poor occupational health and safety standards.[68] In its 2004 Annual Report, the Congressional-Executive Commission on China similarly concluded that:

Working conditions in China and the government's lack of respect for internationally recognized worker rights remained largely unchanged over the past year. Government implementation of labor laws, regulations, and policies continues to fall well below international norms in a number of areas. The Chinese government denies Chinese citizens the right to organize freely and to bargain collectively; it continues to imprison labor leaders and suppress worker efforts to represent their own interests; it continues to discriminate against migrant workers; and it has developed a system that encourages forced labor. Child labor remains a significant problem in China. In addition, unhealthy and unsafe conditions are pervasive in Chinese workplaces.[69]

These repressive labor practices are a significant element holding down wages and labor costs in China and thereby giving China an enormous competitive advantage in labor-intensive production. This has a pronounced impact in the United States on a broad spectrum of industries, including higher-skill industries like aerospace:

> *Failure to permit labor to enjoy freedom of association through the formation of legitimate trade unions and to engage in meaningful collective bargaining is a market distorting mechanism that artificially holds down wages. There is certainly no dispute that wages in China are low, even compared with those from developing countries. A recently reported study calculated that '[T]he cost of Chinese factory labor is a paltry 64 cents an hour.' While aerospace workers in China are presumably on the higher end of the wage scale, they indisputably receive only a fraction of pay that U.S. aerospace industry workers receive and 'although reliable data on comparable labor costs in China are not available, we can be confident that aerospace wages in China are below Mexican levels, and far below those in the U.S.'*[70]

U.S. trade laws recognize that a country's repressive labor practices can constitute an unfair trade practice. Section 301 of the Trade Act of 1974 authorizes the U. S. Trade Representative (USTR) to take action to address "unreasonable" trade practices by U.S. trading partners that burden U.S. commerce. Among the enumerated "unreasonable" trade practices listed in the statute is a country's persistent denial of internationally recognized workers' rights.[71] On this basis, the AFL–CIO submitted a 301 petition in 2004 arguing that China's labor practices constitute an unreasonable trade practice and a burden on U.S. commerce. Giving no reason, USTR turned down the petition and took no action.

Effect on U.S. Employment

The foregoing discussion details the competitive challenges faced by U.S. firms in a broad array of industries in competing against Chinese firms and China-based production. These competitive challenges threaten the survival of many industries in the United States, with implications for both U.S. economic health and national security.[72]

To better understand the economic impact of U.S.-China trade and investment, the Commission supported two studies over the past year to quantify U.S. production shifts to China and the accompanying effect on U.S. employment. To put the following figures in context, consider that the U.S. economy employed 150.1 million people in September 2005, representing an increase of 5.8 million jobs since China joined the WTO in December 2001. The U.S. manufacturing sector employed 14.2 million people in September 2005, following a decrease of 1.5 million jobs from December 2001.[73] The job gain data must be measured by the quality of those jobs in terms of wage and benefit levels. "Nationwide, industries that are gaining jobs relative to industries that are losing jobs pay 21 percent less annually."[74] "Recent wage growth is compared to three

benchmarks: trends since mid-1995, inflation, and productivity. In every case, wages are performing worse now than a few years ago."[75]

The first study, jointly authored by Dr. Kate Bronfenbrenner of Cornell University and Dr. Stephanie Luce of the University of Massachusetts, Amherst, utilized a methodology that involved a combination of online media tracking and corporate research and the creation of a database including information on all production shifts announced or confirmed in the media during the covered period.[76] The study covered the period January-March 2004, and was a followup to a prior study done for the Commission in 2002 covering the period October 1, 2000 to April 30, 2001.

Among the study's key findings were the following:[77]

- There have been major increases in production shifts out of the United States, particularly to Mexico, China, India, and other Asian countries. The pace of production shifts to China grew considerably between 2001 and 2004. During just the first three months of 2004, there were 58 such shifts to China documented across a range of industries, compared to 25 shifts to China during a similar period in 2001, an increase of 132 percent.
- Due to increasing efforts by firms to minimize publicity regarding overseas production shifts and other data limitations, particularly regarding smaller firms, the methodology used to track production shifts likely captures only approximately two-thirds of production shifts to Mexico and about a third of production shifts to other countries. Accordingly, the report projected that for the full year of 2004 production shifts will result in as many as 406,000 jobs moving from the United States to other countries compared to 204,000 jobs in 2001, of which nearly 100,000 jobs will move from the United States to China.
- The number of jobs lost because of production shifts far exceeds that reported by the Bureau of Labor Statistics (BLS). The BLS documented that 4,633 private sector workers in establishments with 50 or more workers lost their jobs due to global outsourcing in January-March 2004, whereas the Bronfenbrenner/Luce Report found solid confirmation that a minimum of 25,000 jobs were shifted overseas during that period.
- Production shifts from the United States to China represent a cross section of industrial sectors including apparel and footwear, sporting goods and toys, wood and paper products, aerospace, appliances, household goods, industrial equipment and machinery, electronics and electrical equipment, metal fabrication and production, chemicals and petroleum, textiles, and plastics, glass, and rubber. This contrasts with 2001 when most production shifts to China were concentrated in a few industries: electronics and electrical equipment, chemicals and petroleum, household goods, sporting goods and toys, textiles, and wood and paper products.
- Media-tracking and other such methodologies are needed to gain a picture of the extent of production shifts to China because there continues to be no government-mandated reporting system to track production shifts out of the United States.

The second study, prepared for the Commission by Dr. Robert Scott of the Economic Policy Institute (EPI), assessed the state-by-state employment impact of U.S.-China trade over the period 1989–2003 using an input-output methodology that determines the number of jobs needed to produce exports and imports.[78] This methodology is based on the premise that increases in exports support domestic employment while increases in imports displace domestic production that could have supported more jobs in any given sector and is therefore a measure of job opportunities created or lost through trade.

The EPI report found the following:[79]

- The rise in the U.S. trade deficit with China from 1989 to 2003 caused displacement of production that supported 1.5 million U.S. jobs. The loss of jobs in the United States due to the growing trade deficit with China has more than doubled since China entered the WTO in 2001.
- China's exports to the United States of electronics, computers, and communications equipment, along with other products that use more highly skilled labor and advanced technologies, are growing much faster than its exports of low-value, labor-intensive items such as apparel, shoes, and plastic products.
- The 1.5 million job opportunities lost nationwide are distributed among all 50 states and the District of Columbia.

The Commission intends to support further research efforts like these studies to obtain the data U.S. policymakers and the American public need to better understand how the U.S.-China economic relationship is affecting our economy and standard of living.